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ABSTRACT

Fluids in a vessel are subjected to a high ultrasonic intensity, by means of several ultrasonic transducers attached to a wall of the vessel, each transducer (14) radiating no more than 3 W/cm^2, the transducers being sufficiently close to each other, and the number of transducers being sufficiently high, that the power dissipation within the vessel is at least 25 W/litre. The number of transducers, the power of the transducers, and the volume of the vessel may be such that the power density is between 40 and 80 W/litre. The vessel may be double walled, and the space between the two walls be filled by a low attenuation buffer liquid (36) whose cavitation threshold is above that of the liquid being treated.